SBR No. 105/18-19
DATED 19-2-19

Original/Duplicate/Triplicate

CONTRACT CERTIFICATE

(For Other Works)

No.4[Th] & Final bill

Date.....2017

Division: **Electricals (Yelahanka)**

Sub-Division: **Electricals**

EE/ELE/Y/BR No 141/18-19

Bill Received No. Dated

Divisional / Sub Divisional

Cash Book Voucher No..... Dated 19-2-19

Job Code :-011-17-000045

Head of Account :**P 0287** (M&R to Electrical Crematorium)

Schedule Docket No.

D.R.No. :

Bill Period: **01-04-2018 to 31-10-2018 (for7 months)**

Name of Work : *Annuaal Maintenance of Electrical Equipments and Maintenance of Crematorium at Mediagrahara Lakshmipura in Ward No 11*"

Name of Contractor and Full Address:**M/S S.B.E.S Electricals**

Job Code :-009-16-000013

Reference to Agreement No:EE/Ele/YZ/WO/02 /17-18 Date:27/4/2017

Supplementary Work order No:EE(ele)/YZ/WO/000045/2018-19 dated 01-02-2019

Certified that the measurements were taken by me on 14/2/2019 and recorded of Pages 256320 to 325 of measurement Book No.2564/18-19 and that the work is satisfactorily executed.

For S.B.E.S. ELECTRICALS

Contractor

Officer-in-charge of work

Certified that the measurement were taken by me on ...14/2/19.....and found correct. The work is satisfactorily executed. Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Assistant Executive Engineer (Ele)

Sub Division Officer

II Memorandum of Payment

1) Total value of work done or supplies made as per account within	BIll =	432033=00
2) Deduct amount to be held in reserve being .....percent Rs.....	IT 1%	4321=00
3) " Balance	Scest 1%	3858=00
4) Deduct Payment:	Cest 1%	3858=00
a) Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D. No..... Amount	LWC 1%	4321=00
adjusted towards cash advance recovery of	CBFD 1%	432=00
	FSD 5%	21602=00
b) Payments Now made } cost store or other material supplied. recovery of amount creditable to this/other work Amount paid on this bill Cheque / Cash.	deductions=	38392=00
5) Balance being unpaid value of work done held in reserve.		
6) Deduct cash advance made on the Office cash Book Voucher No..... dated.....less adjustments.	Cheque =	393641=00
7) Net amount due to or from Contractor unadjustments items.		
8) Advance to Contractor for materials brought to site (as detailed) within.		
9) Value of Government materials supplied.		
Total amount adjusted -		

For S.B.E.S. ELECTRICALS

Contractor's Signature

Received Rs..... (in words).....

.....

.....

by cash and by adjustment of Payment as per memorandum

(in final settlement of all demands)

Proprietor

Witness

1.

2.

Dated Signature of Contractor

(For use in the Office)

For S.B.E.S. ELECTRICALS

Stamp

Proprietor

Paid by me by Cheque No.....Dated.....

Cash Rs.....Dated.....

Initials of Officer making payment

ಲೆಕ್ಕಶೀರ್ಷಿಕೆ P0287 M&R to Elect.

ರೂ: 432033=00 ಡೆಬಿಟ್ ಮಾಡಿ ಸ್ವೀಕರಿಸಿದೆ

ರೂ: 393641=00 ಚೆಕ್ ನೀಡಬಹುದಾಗಿದೆ

ರೂ: 38392=00 ತಡೆಹಿಡಿತಕ್ಕೆ ಮಾಡಿದೆ

Executive Engineer

ಲೆಕ್ಕ ಅಧೀಕ್ಷಕರು

ಕಾ.ಪಾ.ಅ.(ವಿ) ಯಲಹಂಕ ವಲಯ

Sl no	Description of item
	Name of Work : Annuaal Maintenance of Electrical Equipments and Maintenance of Crematorium at Mediagrahara Lakshmipura in Ward No 11
1	Licenced electrician wiremen fitter with tools (Skilled) Rs.13365/Person/Month. Rs.13365*12=1,60,380/Person/Year. KAE71LWA 2015 Dated 04-08-2016
2	a).Helper (Electrical) (Semi-Skilled) Rs.11011/Person/Month. Rs.11011*12=132132/Person/Year. KAE71LWA 2015 Dated 04-08-2016
3	a).Sweeper (Unskilled) Rs.11011/Person/Month. Rs.11011*12=132132/Person/Year. KAE71LWA 2015 Dated 04-08-2016
4	Gurkha Watchman (Unskilled) Rs.11011/Person/Month. Rs.11011*12=132132/Person/Year. KAE71LWA 2015 Dated 04-08-2016
5	Material components per day a)soap oil
6	b)henyl
7	c)Air Freshner cakes
8	d)Room Freshner
9	e)Checks cloth
10	f)Dust cloths
11	g)Mop cloth
12	h)Soft broom
13	i)Hard broom
14	j)Road brush
15	k)Urinal cakes
16	l)HCL
17	Body Resting Bricks made out of Refractory to with stand. Temperature upto 1000c to the required shape-as per BIS-8
18	Supplying and fixing of heating element made out of nickel chromium 8/20, 8 SWG composition wire with SS 310, 450 x 10 mm dia. with one side threaded terminal rod duly welded, coil length 2690 mm, coil dia., 25 mm, weight of the coil 4.5 kg, coil of 0 to 25 mm ID 15 mm pitch to 8 to 10 mm (inclusive of KST, ST and CESS etc.
19	Supplaying & Fixing of nickel chromium Heating coils 4.5 KW suitable for Verticle mounting system in Electrical Furnace
20	Annual Maintenance of 180 KVA D.G. Set Existing A.M.C. including of labour charges only for replacing the spare parts and periodically checkup of D.G. AMF panel (Without operator)
21	Supplying & Changing of B Check Kit for Engine.
22	Supplying & Changing of Alternator AVR.(Automatic Voltage Regulator)
23	Supplying & Changing of Alternator Rectifier
24	Supplying & Changing of Dynamo repair Kit such as Corbons, Bearings & Diode Etc,.
25	Supplying & Changing of Batery terminals
26	Supplying & Fixing of Air filter

Un	Previous		Present Measurement			Total Upto Date		Remarks
	Qty.	Cost	Qty.	Rate	Amount	Qty	Cost	
Per Person	1x11 Months	146666.63	1x7 Months	13333.33	93333.31	1x18 Months	239999.94	
Per Person	1x11 Months	128333.27	1x7 Months	11666.66	81666.62	1x18 Months	209999.89	
Per Person	1x11 Months	128333.27	1x7 Months	11666.66	81666.62	1x18 Months	209999.89	
P/Ltrs	80	1200.00	72	15.00	1080.00	152	2280.00	
P/Ltrs	123	6150.00	71	50.00	3550.00	194	9700.00	
Each	131	13100.00	56	100.00	5600.00	187	18700.00	
P/Ltrs	74	7400.00	28	100.00	2800.00	102	10200.00	
Doz	79	3950.00	37	50.00	1850.00	116	5800.00	
Doz	39	2340.00	15	60.00	900.00	54	3240.00	
Each	24	1440.00	12	60.00	720.00	36	2160.00	
Each	26	650.00	14	25.00	350.00	40	1000.00	
Each	25	750.00	10	30.00	300.00	35	1050.00	
Each	9	900.00	3	100.00	300.00	12	1200.00	
Each	115	5750.00	33	50.00	1650.00	148	7400.00	
P/Ltrs	27	2700.00	9	100.00	900.00	36	3600.00	
Each	8	80000.00	0	10000.00	0.00	8	80000.00	
Each	6	90000.00	0	15000.00	0.00	6	90000.00	
Each	0	0.00	3	10000.00	30000.00	3	30000.00	
Each	0	0.00	1	12000.00	12000.00	1	12000.00	
Nos	1	2000.00	1	2000.00	2000.00	2	4000.00	
Nos	1	5000.00	0	5000.00	0.00	1	5000.00	
Nos	1	5000.00	0	5000.00	0.00	1	5000.00	
Nos	1	1000.00	0	1000.00	0.00	1	1000.00	
Nos	2	4000.00	0	2000.00	0.00	2	4000.00	
Nos	0	0.00	1	1000.00	1000.00	1	1000.00	

27	Supplying & Changing of Radiator Fly wheel gear
28	Supplying of Switch disconnector fuse unit (TPN) HRC type (but without HRC fuses). With AC-23A duty and as per IS-13947. 2) 125Amps
29	Supplying and fixing HRC fuse link on existing switch fuse base with watt loss as per IS-13703. 3) 125Amps
30	Supplying & Changing of Cylinder head caliberation.(3 Nos)
31	Supplying & Changing of Radiotor hose Kit (3 Nos)
32	Supplying & Changing of Pump gasket
33	Supplying & Changing of Top cover gasket.
34	Servicing & cleaning of Scrubber, Scrubber duct Exhaust Blower & Duct Furnace to Chimny and cleaning of chimny (6 monts once)
35	Accost - 50 Grade
36	Fire crate super
37	Thermotex
38	Fire blanket : 128 Grade
39	IS 8 Standard Brick : Size : 9x4.5x3
40	Plastic buckets 20 L capacity PWD Civil SR 2013-14
41	Plastic Mugs PWD Civil SR 2013-14
42	Point wiring using Copper wire with switch Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2 X1.5Sq.mm Cable confirming to the GTP, with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet / gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. GROUP A Long point above 6Mtr upto 10Mtr from tapping point to out let via switch
43	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper conductor single core wire in open or concealed system of wiring as per IS-694:1990 & confirming to GTP of GROUP -A.1.5 sqmm
44	4)4 sqmm
45	Supplying and fixing/replacing of 6/16/32Amps electrical accessories on existing switch board. GROUP A 6Amps SP Switch
46	6Amps 3 way 5 pin Socket
47	16 Amps SP switch
48	16 Amps 3 way 5 pin socket
49	Stepped Fan Regulator.
50	LED Indoor Supplying of 2' feet - LED PVC Square Batten ..W with high quality diffuser with Life of 25000 burning hours & 70% lumen maintenance with CRI > 80. Power Input: 220-240V @ 50Hz & Power factor >0.9 along with CE approved drivers. 5 years Warranty against any manufacturing defect working under standard electrical conditionLED light fighting 4' - 28 watts
51	Supplying and fixing Moulded Case Circuit Breaker (MCCB) Over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of overload and short circuit with thermal Magnetic/Micro processed release and Earth Fault as per IS-13947. (Icu=Ics). FOUR POLE 6) 125-160Amps 25kA.
52	Supplying and fixing of Shunt trip suitable for MCCB.CBCT.
53	Supplying, installaion, testing & commis-sioning of 12Volts.. AH batteries in poly propylene container for D.G Sets low maintenance batteries. 4) 150 AH, Acid batteries.
54	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 4) 100 Amps

Nos	0	0.00	1	3000.00	3000.00	1	3000.00	
Each	3	9000.00	0	3000.00	0.00	3	9000.00	
Each	6	13500.00	0	2250.00	0.00	6	13500.00	
Set	0	0.00	1	5000.00	5000.00	1	5000.00	
Set	0	0.00	1	5000.00	5000.00	1	5000.00	
Nos	0	0.00	1	1000.00	1000.00	1	1000.00	
Nos	0	0.00	1	1000.00	1000.00	1	1000.00	
P/Set	4	100000.00	0	25000.00	0.00	4	100000.00	
Bag	2	2000.00	2	1000.00	2000.00	4	4000.00	
Bag	2	2000.00	0	1000.00	0.00	2	2000.00	
Bag	2	2000.00	0	1000.00	0.00	2	2000.00	
Each	3	3000.00	0	1000.00	0.00	3	3000.00	
Each	100	20000.00	0	200.00	0.00	100	20000.00	
No	4	800	0	200.00	0.00	4	800.00	
No	8	800.00	0	100.00	0.00	8	800.00	
Mtr	10	6000	0	600.00	0.00	10	6000.00	
Rmt	93	930	0	10.00	0.00	93	930.00	
P/Mtr	139	20850	0	150.00	0.00	139	20850.00	
Nos	20	4000	0	200.00	0.00	20	4000.00	
No	10	1000	0	100.00	0.00	10	1000.00	
No	5	800	0	160.00	0.00	5	800.00	
Each	5	1000	0	200.00	0.00	5	1000.00	
Nos	5	2250	0	450.00	0.00	5	2250.00	
Each	0	0	20	2000.00	40000.00	20	40000.00	
Each	2	4500	1	2250.00	2250.00	3	6750.00	
Each	1	1000	0	1000.00	0.00	1	1000.00	
Each	1	3000	1	3000.00	3000.00	2	6000.00	
Each	3	600	3	200.00	600.00	6	1200.00	

55	5) 200 Amps
56	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz AC Supply complete. 2) 15" Sweep (450mm)
57	Fixing one exhaust fan after making a suitable nitch in the wall and finishing with cement mortar and colouring to match the existing wall or brackets, with bolts and nuts and a 5 amps, ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire of approved make with wire mesh and wooden frame.
58	Supplying and fixing of Alkathine tube of 25 mm dia as per standard technical specification
59	Supplying and installation of RUBBER MAT 1 mt X 2mt 10 mm thick. PWD Electrical SR 2010-11
60	Supplying and fixing of DANGER/NO ADMISSION/NO SMOKING board made out of MS sheet metal with two coats of non corrosive enameled paint. PWD Electrical SR 2007-08
61	Supplying of Rubber HAND GLOVES of Electrical quality to 22KV. PWD Electrical SR 2007-08
62	Supplying of Safty MASK, PWD Electrical SR 2007-08
63	Supplying and fixing of LED type panel board indicating lamp with required colour suitable for 220v A.C.50 Hz 12/24v D.C.
64	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes 11) 95 sq mm long barrel
65	15) 240 sq mm long barrel
66	Supply and fixing of 4 pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947. 4) 5)160-200Amps
67	3) 60-70 amps
68	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10K and Complete wiring as required confirming IEC 60898. 6) 40-63 Amps TPN
69	3) 5-32Amps DP
70	Supplying of LED Floodlight with .....W System Power consumption pressure die cast aluminum housing with powder coating with IP 65 protection. 1, 200-275V voltage with electronic Driver, PF>0.9, should meet ANSI 2G Vibration test, Compliance to UL/CE with Class I. System rating shall be 50K hrs. @ Lumen maintenance of 70%, system efficacy > 80lm/w. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer.LED Floodlight 90W
71	Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A. 2 X 16 + 1 X 25 SQ.MM
72	Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR

Each	3	1200	3	400.00	1200.00	6	2400.00	
Each	0	0	0	4500.00	0.00	0	0.00	
Mtrs	0	0	0	500.00	0.00	0	0.00	
Each	3	6000	1	2000.00	2000.00	4	8000.00	
Each	1	1500	0	1500.00	0.00	1	1500.00	
Pair	0	0	5	200.00	1000.00	5	1000.00	
Each	0	0	2	100.00	200.00	2	200.00	
Each	2	400	0	200.00	0.00	2	400.00	
Each	6	1200	0	200.00	0.00	6	1200.00	
Each	9	1350	0	150.00	0.00	9	1350.00	
Each	7	1050	0	150.00	0.00	7	1050.00	
Each	6	12000	0	2000.00	0.00	6	12000.00	
Each	3	4500	0	1500.00	0.00	3	4500.00	
Each	4	4000	1	1000.00	1000.00	5	5000.00	
Nos	7	3150	1	450.00	450.00	8	3600.00	
Nos	4	80000	0	20000.00	0.00	4	80000.00	
Mtrs	350	175000	0	500.00	0.00	350	175000.00	
Mtrs	350	17500	0	50.00	0.00	350	17500.00	

73	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II.LED Streetlight 65watts
	Total Rs
	Less Excess Paid In 2nd RA Bill Item No 29 (3NosxRs2250= 6750.00)
	~~Less Excess Paid In 2nd RA Bill Item No 43 (48Mtrsx20=960.00)~~
	Less Excess Paid In 2nd RA Bill Item No 70 (2Nosx20000=40000.00
	Total Rs

Certificate: 1. Certefied that the Above Work has been carreid out satisfactorily

Assistant Executive Engineer (...)
BBMP, Bangalore

Nos	10	120000	0	12000.00	0.00	10	120000.00	
		1392876.44			472033.17		1864909.61	
		6750.00			0.00		6750.00	
					+960.00		+ 960.00	
					40000.00		40000.00	
		1386126.44			**431073.17**		**1817199.61**	

960=00

432033.17

1818159.61